

WHAT IS CLAIMED IS

- 1 1. A method for delivering treatment fields, comprising:
2 identifying a sequence group;
3 determining a type of radiation to be applied in a first field of said
4 sequence group, said type of radiation selected from primary photon
5 radiation and primary electron radiation;
6 configuring, based at least in part on said type of radiation, a
7 radiation therapy treatment device to deliver said first field; and
8 delivering said first field.
- 1 2. The method of claim 1, wherein said sequence group includes
2 instructions defining a plurality of fields.
- 1 3. The method of claim 2, wherein at least one of said plurality of fields
2 is a photon field and at least one of said plurality of fields is an electron
3 field.
- 1 4. The method of claim 1, further comprising identifying, based at least
2 in part on said type of radiation, at least one interlock library, and wherein
3 said configuring further includes configuring said radiation therapy device
4 based at least in part on said at least one interlock library.
- 1 5. The method of claim 1, wherein said configuring includes:
2 positioning elements of a photon collimator; and
3 positioning elements of an electron collimator.
- 1 6. The method of claim 1, wherein said type of radiation is primary
2 photon radiation, and wherein said configuring further comprises:

3 partially retracting elements of an electron collimator, and
4 positioning elements of a photon collimator to define said field.

1 7. The method of claim 1, wherein said type of radiation of primary
2 electron radiation, and wherein said configuring further comprises:
3 partially retracting elements of a photon collimator, and positioning
4 elements of said electron collimator to define said field.

1 8. The method of claim 1, further comprising:
2 determining whether said sequence group includes a second field;
3 determining a type of radiation to be applied in said second field of
4 said sequence group, said type of radiation selected from primary photon
5 radiation and primary electron radiation;
6 configuring, based at least in part on said type of radiation, said
7 radiation therapy treatment device to deliver said second field; and
8 delivering said second field.

1 9. The method of claim 8, wherein said second field and said first field
2 are different types.

1 10. The method of claim 1, further comprising:
2 selecting between a clinical mode and a quality assurance mode;
3 and
4 storing data regarding said treatment sequence in a patient chart if
5 said clinical mode is selected.

1 11. The method of claim 10, further comprising:
2 storing data regarding said treatment sequence in a quality
3 assurance chart if said quality assurance mode is selected.

1 12. A method for automating the delivery of a plurality of treatment
2 fields, comprising:

3 identifying a sequence group defining said plurality of treatment
4 fields;
5 determining a type of radiation to be applied in a first of said
6 treatment fields, said type of radiation selected from primary photon
7 radiation and primary electron radiation;
8 configuring, based at least in part on said type of radiation, a
9 radiation therapy treatment device to deliver said treatment field; and
10 delivering said treatment field; and
11 repeating said determining, configuring and delivering until each of
12 said plurality of treatment fields of said sequence group have been
13 delivered.

1 13. A radiation therapy device, comprising:
2 a beam source, selectively operated to generate a beam having a
3 beam type selected from a primary photon beam and a primary electron
4 beam;
5 a beam shaping device, selectively operated to shape said beam;
6 and
7 a control system coupled to said beam source and said beam
8 shaping device and operable to
9 identify a treatment sequence group having a plurality of
10 fields;
11 identify a required beam type of each field of said treatment
12 sequence group; and
13 operate said beam shaping device to shape said beam to
14 deliver each of said fields.

1 14. The device of claim 13, wherein said beam shaping device includes
2 an electron collimator and a photon collimator.

1 15. The device of claim 13, wherein said control system is further
2 operable to capture treatment data during delivery of each of said fields.

1 16. The device of claim 13, wherein said control system is selectively
2 configured in one of a clinical mode and a test mode.

1 17. An apparatus for delivering treatment fields, comprising:
2 means for identifying a sequence group;
3 means for determining a type of radiation to be applied in a first field
4 of said sequence group, said type of radiation selected from primary
5 photon radiation and primary electron radiation;
6 means for configuring, based at least in part on said type of
7 radiation, a radiation therapy treatment device to deliver said first field; and
8 means for delivering said first field.

1 18. The apparatus of claim 17, wherein said means for configuring
2 comprise a photon collimator and an electron collimator.

1 19. A method for testing delivery of radiation fields, comprising:
2 identifying a sequence group to be tested;
3 identifying an instruction of said sequence group, said instruction
4 defining at least a type of radiation to be applied and a configuration of
5 components of a radiation therapy device;
6 preventing a beam source of said radiation therapy device from
7 generating said radiation;
8 configuring components of said radiation therapy device as defined
9 by said instruction; and
10 repeating said identifying an instruction, said preventing, and said
11 configuring for each instruction of said sequence group.